



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of: Soppet, et al.

Confirmation No.: 5548

Application Serial No.: 10/070,532

Group Art Unit: 1647

Filed: March 7, 2002

Examiner: C. J. Nichols

Title: Human Neuropeptide Receptor

Atty. Docket No.: PF168P3

**INFORMATION DISCLOSURE**  
**STATEMENT PURSUANT TO 37 § CFR 1.56**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure imposed by 37 C.F.R. § 1.56 to inform the Patent and Trademark Office of all references coming to the attention of each individual associated with the filing or prosecution of the subject application, which are or may be material to the patentability of a claim of the subject application, Attorneys for Applicants hereby direct the Examiner's attention to references AA-CS listed on the attached Form PTO/SB/08A.

Copies of references AB, AC, AE, AG, AI-AM, AR-AU, AW, AY, BB, BD-BK, BO, BQ, BR, BT, BU, BW, BX, CA-CE, CG, CI-CL, CO, CP, and CR were submitted by Applicants or cited by the Examiner in connection with U. S. Patent Application Serial No. 09/393,696, filed September 10, 1999, and/or related U. S. Patent Application Serial No. 08/462,509, filed June 5, 1995, to which the instant application claims priority under 35 U.S.C. § 120. Pursuant to 37 C.F.R. § 1.98(d), the Examiner is directed to the above-listed files for copies of these reference(s). Copies of references AA, AD, AF, AH, AN-AQ, AV, AX, AZ, BA, BC, BL-BN, BP, BS, BV, BY, BZ, CF, CH, CM, CN, CQ, and CS are submitted herewith.

The above information is presented so that the Patent and Trademark Office can determine any materiality thereof to the claimed invention. See 37 CFR § 1.104(a)

concerning the PTO duty to consider and use any such information. It is respectfully requested that the information be considered during the prosecution of this application.

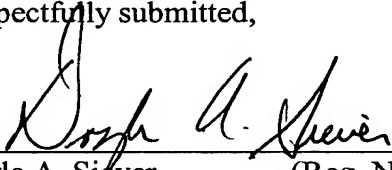
Identification of the listed reference(s) is not to be construed as an admission of any individual associated with the filing or prosecution of the subject application that such references are available as "prior art" against the subject application. Furthermore, Applicants do not waive any rights to appropriate action to establish patentability over any of the listed documents should they be applied as references against the claims of the subject application.

Applicants respectfully request that the Examiner review the listed reference(s) and that the reference(s) be made of record in the file history of the application.

Pursuant to 37 C.F.R. § 1.97(b), since this information disclosure statement is being filed before the mailing date of a first Office Action on the merits, no fee is due in connection herewith. However, should the Patent Office determine otherwise, please charge the required fee to Human Genome Sciences, Inc., deposit account no. 08-3425.

Respectfully submitted,

Dated: September 17, 2004

  
\_\_\_\_\_  
Doyle A. Siever (Reg. No. 47,088)  
Patent Agent  
**Human Genome Sciences, Inc.**  
14200 Shady Grove Road  
Rockville, MD 20850  
Telephone: (301) 354,3932



PTO/SB/08a/b (08-03)

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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**Complete if Known**

Application Number	10/070,532-Conf. #5548
Filing Date	March 7, 2002
First Named Inventor	Daniel R. Soppet
Art Unit	1647
Examiner Name	C. J. Nichols
Attorney Docket Number	PF168P3

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	AA	US-2002/0082202	06-27-2002	Bergsma, et al.	
	AB	US-5,527,676	06-18-1996	Vogelstein, et al.	
	AC	US-5,935,814	08-10-1999	Bergsma, et al.	
	AD	US-6,001,963	12-14-1999	Bergsma, et al.	
	AE	US-6,020,157	02-01-2000	Bergsma, et al.	
	AF	US-6,309,854	10-30-2001	Bergsma, et al.	
	AG	US-6,319,710	11/2001	Olafsdottir, et al.	
	AH	US-6,372,757	04-16-2002	Johns, et al.	

**FOREIGN PATENT DOCUMENTS**

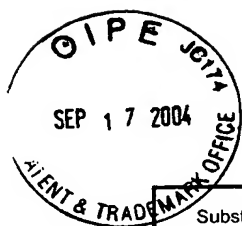
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	AI	WO-93/09277	05-13-1993	Garvan Inst. Med. Res.		
	AJ	WO-93/11249	06-10-1993	Novo Nordisk, A/S		
	AK	WO-94/05695	03-17-1994	New York University		
	AL	WO-96/05302	02-22-1996	Takeda Chemical Indust.		
	AM	WO-96/34877	11-07-1996	Human Genome Sciences, Inc.		
	AN	WO-99/58533	11-18-1999	SmithKline Beecham		
	AO	WO-00/47284	08-17-2000	SmithKline Beecham		
	AP	WO-01/14555	03-01-2001	Decode Genetics EHF.		
	AQ	WO-01/30991	05-03-2001	Decode Genetics EHF.		
	AR	EP-0 121 352	10-10-1984	The Public Health Laboratory Service Board		
	AS	EP-0 875 566	10-27-1997	SmithKline Beecham		
	AT	EP-0 875 565	11-04-1998	SmithKline Beecham		

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	AU	ATCC Catalog of Cell lines and hybridomas, 7th Edition (1992)	
	AV	BURBACH, et al., "The structure of neuropeptide receptors," <i>Eur J Pharmacology</i> , 227(1):1-18 (September 1, 1992)	
	AW	COLMERS, et al., "Effects of neuropeptide Y on the electrical properties of neurons," <i>TINS</i> , 17(9):373-379 (1994)	
	AX	De LECEA, et al., "The hypocretins: hypothalamus-specific peptides with neuroexcitatory activity," <i>Proc. Natl. Acad. Sci. USA</i> , 95:322-327 (January 1998)	

Examiner Signature	Date Considered
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Examiner Name	C. J. Nichols
Attorney Docket Number	PF168P3

AY	de WEERTH, et al., "Molecular cloning, functional expression and chromosomal localization of the human cholecystokinin type A receptor," <i>Biochem. Biophys. Res. Comm.</i> , 194:811-818 (1993)	
AZ	EVA, et al., "Molecular cloning of a novel G protein-coupled receptor that may belong to the neuropeptide receptor family," <i>FEBS Lett.</i> , 271(1-2):81-84 (October 1, 1990)	
BA	FLIER, et al., "Obesity and the hypothalamus: novel peptides for new pathways," <i>Cell</i> , 92:437-440 (February 20, 1998)	
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BF	Genbank Accession No.: JN0692 (February 23, 1997)	
BG	Genbank Accession No.: R55704 (May 22, 1995)	
BH	GeneSeq Accession No.: T51065 (March 13, 1997)	
BI	GeneSeq Accession No.: W11236 (March 13, 1997)	
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BL	GRÜNDKER, et al., "Role of gonadotropin-releasing hormone (GnRH) in ovarian cancer," <i>Reproductive Biology and Endocrinology</i> , 1:65 (October 7, 2003)	
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BN	HAKANSSON, et al., "Leptin receptor- and STAT3-immunoreactivities in hypocretin/orexin neurones of the lateral hypothalamus," <i>J. Neuroendocrinol.</i> , 11(8):653-663 (August 1999) (Abstract Only)	
BO	HAWES, et al., "Inhibition of G protein-coupled receptor signaling by expressing of cytoplasmic domains of the receptor," <i>J. Biol. Chem.</i> , 269:15776-15785 (1994)	
BP	HERZOG, et al., "Cloned human neuropeptide Y receptor couples to two different second messenger systems," <i>Proc. Natl. Acad. Sci. USA</i> , 89:5794-5798 (July 1992)	
BQ	HERZOG, et al., "Genomic organization, localization, and allelic differences in the gene for the human neuropeptide Y T1 receptor," <i>J. Biol. Chem.</i> , 268(9):6703-6707 (1993)	
BR	HERZOG, et al., "Molecular Cloning, characterization, and localization of the human homolog to the reported bovine NPY Y3 receptor: Lack of NPY binding and activation," <i>DNA and Cell Biology</i> , 12:465-471 (1993)	
BS	HILAIRET, et al., "Hypersensitization of the orexin 1 receptor by the CB1 receptor," <i>The Journal of Biological Chemistry</i> , 278(26):23731-23737 (June 27, 2003)	
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BV	IRVING, et al., "Increased cortical expression of the orexin-1 receptor following permanent middle cerebral artery occlusion in the rat," <i>Neuroscience Letters</i> , 324:53-56 (May 10, 2002)	
BW	JAZIN, et al., "A Proposed Bovine Neuropeptide Y (NPY) Receptor cDNA Clone, or Its Human Homologue, Confers Neither NPY Binding Sites Nor NPY Responsiveness on Transfected Cells," <i>Regulatory Peptides</i> , 47:247-258 (1993)	
BX	LaNOUE, et al., "Abnormal A <sub>1</sub> adenosine receptor function in genetic obsity," <i>FASEB Journal</i> , 8:72-80 (1994)	
BY	LARHAMMAR, et al., "The receptor revolution -- multiplicity of G-protein-coupled receptors," <i>Drug Design and Discovery</i> , 9:179-188 (1993)	
BZ	LARHAMMAR, et al., "Cloning and functional expression of a human neuropeptide Y/Peptide YY receptor of the Y1 type," <i>The Journal of Biological Chemistry</i> , 267(16):10935-10938 (June 5, 1992)	
Examiner Signature		Date Considered



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Sheet	3	of	3
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CA	LEBO, et al., Cold Spring Harbor Symp. Quant. Biol., 51:169-176 (1986)	
CB	LEIBEL, et al., "Strategies for the molecular genetic analysis of obesity in humans," <i>Crit. Rev. Food Sci. and Nutr.</i> , 33(4-5):351-358 (1993)	
CC	LUNDELL, et al., "The cloned rat pancreatic polypeptide receptor exhibits profound differences to the orthologous human receptor," <i>PNAS</i> , 93:5111-5115 (1996)	
CD	LUTTRELL, et al., "Antagonism of catecholamine receptor signaling by expression of cytoplasmic domains of the receptors," <i>Science</i> , 259:1453-1457 (1993)	
CE	MANTZOROS, et al., "Activation of $\beta_3$ adrenergic receptors suppresses leptin expression and mediates a leptin-independent inhibition of food intake in mice," <i>Diabetes</i> , 45:909-914 (1996)	
CF	MARCHESE, et al., "Two gene duplication events in the human and primate dpoamine D5 receptor gene family," <i>Gene</i> , 154:153-158 (March 10, 1995)	
CG	MILLS, et al., "Orphan Seven Transmembrane Domain Receptors Reversing Pharmacology," <i>Trends in Pharmacological Sci.</i> , 14(11):394-396 (1993)	
CH	PEYRON, et al., "A mutation in a case of early onset narcolepsy and a generalized absence of hypocretin peptides in human narcoleptic brains," <i>Nature Medicine</i> , 6(9):991-? (September 2000)	
CI	PROBST, et al., "Sequence alignment of the G-protein coupled receptor superfamily," <i>DNA and Cell Biology</i> , 11:1-20 (1992)	
CJ	RINK, "In search of a satiety factor," <i>Nature</i> , 372:406-407 (1994)	
CK	SAKURAI, et al., "Orexins and orexin receptor: a family of hypothalamic neuropeptides and G protein-coupled receptors that regulate feeding behavior," <i>Cell</i> , 92:573-585 (1998)	
CL	TARTAGLIA, et al., "Identification and expression cloning of a leptin receptor, OB-R," <i>Cell</i> , 83:1263-1271 (1995)	
CM	VOISIN, et al., "Orexins and their receptors: structural aspects and role in peripheral tissues," <i>Cell. Mol. Life Sci.</i> , 60:72-87 (January 2003)	
CN	WELCH, et al., "Sequence and tissue distribution of a candidate G-coupled receptor cloned from rat hypothalamus," <i>Biochem. Biophys. Res. Commun.</i> , 209(2):606-613 (April 17, 1995)	
CO	WILLIE, et al., "To eat or sleep? Orexin in the regulation of feeding and wakefulness," <i>Ann Rev Neurosci</i> , 24:429-458 (2001)	
CP	YAN, et al., "Cloning and functional expression of cDNAs encoding human and rat pancreatic polypeptide receptors," <i>PNAS</i> , 93:4661-4665 (1996)	
CQ	YANG-FENG, et al., "Chromosomal organization of adrenergic receptor genes," <i>Proc. Natl. Acad. Sci. USA</i> , 87:1516-1520 (February 1990)	
CR	ZHANG, et al., "Positional cloning of the mouse obese gene and its human homologue," <i>Nature</i> , 372:425-432 (December 1, 1994)	
CS	ZHANG, et al., "Localization of neuropeptide Y Y1 receptors in the rat nervous system with special reference to somatic receptors on small dorsal root ganglion neurons," <i>Proc. Natl. Acad. Sci. USA</i> , 91:11738-11742 (November 1994)	

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